

Appl. No. 10/786,861
Amtd. Dated November 15, 2007
Reply to Office Action of September 18, 2007

Attorney Docket No. 89188.0058
Customer No.: 26021

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended): A method of improving the stabilization of invertebrate intervertebral discs by reducing the bending hysteresis of scoliotic spines comprising the step of:

contacting at least a portion of a collagenous tissue within the discs with an effective amount of a crosslinking reagent.

2. (Currently amended): A method of improving the stabilization of invertebrate intervertebral discs by increasing the bending stiffness of scoliotic spines comprising the step of:

contacting at least a portion of a collagenous tissue within the discs with an effective amount of a crosslinking reagent.

3. (Original): The method of claims 1 or 2, wherein the crosslinking reagent is injected into the convex side of discs involved in the scoliotic spine.

4. (Original): The method of claims 1 or 2, further comprising performing corrective surgery to stabilize the discs.

5. (Original): The method of claims 1 or 2, further comprising wearing an external brace to stabilize the discs.

6. (Original): The method of claims 1 or 2, wherein the crosslinking reagent is selected from the group consisting of genipin, proanthocyanidin, ribose, threose, and lysyl oxidase.

7. (Original): The method of claims 1 or 2, further comprising contacting at least a portion of a collagenous tissue within the tissues adjacent to the discs with an effective amount of a crosslinking reagent.

8. (Original): The method of claims 1 or 2, wherein the contact between the collagenous tissue and the crosslinking reagent is effected by placement of a time-release delivery system directly into or onto the portion of the collagenous tissue.

9. (Original): The method of claims 1 or 2, further comprising using three-dimensional reconstructions of the collagenous tissue to determine where to contact the collagenous tissue with the crosslinking reagent.

10-18. (Canceled)

19. (Original): A method of increasing the permeability of the outer region of an intervertebral disc, the annulus fibrosus, wherein the fluid flux to and from the central region, or nucleus pulposus, of the intervertebral disc is improved, comprising the step of:

contacting at least a portion of a collagenous tissue within the disc with an effective amount of a crosslinking reagent.

20. (Original): A method of increasing the permeability of an intervertebral disc and increasing the fluid flux to the central region of the disc, wherein the flow of nutrients to cells within the central region of the disc is increased and the flow of cell waste products and degraded matrix molecules from the cells within the central region of the disc are increased, comprising the step of:

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contacting at least a portion of a collagenous tissue within the disc with an effective amount of a crosslinking reagent.

21. (Original): A method of increasing the biological viability of cells in the central region of the intervertebral disc, comprising the step of:

contacting at least a portion of a collagenous tissue within the disc with an effective amount of a crosslinking reagent.

22-30. (Canceled)